

ABSTRACT

In a high temperature/high pressure vessel for treating a workpiece placed in the interior of the vessel at a high temperature and a high pressure wherein piano wire is wound under tension round an outer periphery of a cylindrical body to apply a compressive residual stress to the cylindrical body and axial openings of the cylindrical body are tightly closed with upper and lower lids so that the lids can be disengaged from the openings, the cylindrical body is constituted as a two-layer cylindrical body comprising an inner cylinder and an outer cylinder which is fitted on the inner cylinder through plural spacers arranged along an outer periphery surface of the inner cylinder, allowing cooling water flow paths to be formed each between adjacent such spacers so as to extend from one end side to an opposite end side of the two-layer cylindrical body. In this high temperature/high pressure vessel, vessel packings can be cooled effectively, the piano wire is not wet with cooling water, and the internal space of the vessel can be utilized effectively.